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**Schofield Barracks, Hawaii 96857-5013**

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# *Tripler Army Medical Center, Hawaii Consumer Confidence Report 2002*

***In 1996, the U.S. Congress and the President amended the Safe Drinking Water Act***. One of the provisions that they added to the law was a requirement that all community water systems, **nationwide**, provide to their customers an **annual** Consumer Confidence Report (CCR). CCRs are designed to educate the public on where their water comes from, where potential problems can come from, and what is being done to ensure that their water is safe to drink. The US Army Garrison, Hawaii is providing this report as a service to the community in conjuction with this requirement.

## *How does the CCR work?*

An essential part of the CCR is the table showing the highest level of each detected substance (see inside). There are three columns on the table which should be given special attention: the Maximum Contaminant Level (MCL), the level detected, and whether a violation occurred. The Environmental Protection Agency (EPA) set MCLs for a number of substances, which may be found in drinking water. There are no known health effects if substances are found below these MCLs. All of the substances listed in the table are below the MCLs set by EPA. The US Army Garrison, Hawaii continues to provide some of the cleanest and safest drinking water available in Hawaii!

## *Where does your water come from?*

The Tripler Army Medical Center (TAMC) Water Treatment Plant (WTP) is located south of the installation boundary near the intersection of Jarett White Road and Mahiole Street. Two Army owned 16 inch basal-aquifer wells located at the WTP, extend to a depth of 286 feet. Two electrically powered pumps operate alternately to pump water out of the wells. The water is treated with chlorine prior to entering the distribution system.

The distribution system is broken down into two main loops: The upper and lower loops. Each loop is served by its own 500,000 gallon storage tank. The lower loop serves water to the hospital, the Veterans Administration Facility, and their supporting facilities. The upper loop serves water to the housing areas. Once water enters the distribution system, its first stop is the lower 500,000 gallon storage tank, where the water is treated with fluoride. The water from the lower tank goes to the lower loop and is pumped to the upper 500,000 gallon storage tank. From the upper storage tank, the water flows to each housing facility on the installation.

Chlorine and fluoride are added to the water as required under Army Standards. Chlorine is used as a disinfectant and fluoride is used to promote strong teeth in children.

***In order to ensure that tap water is safe to drink***, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## *Where Potential Ground Water Quality Problems Come From?*

As water percolates through the ground, it dissolves naturally-occuring minerals. Substances resulting from the presence of animals or from human activity can also be introduced to ground water or through the distribution system. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

***Substances that may be mixed with ground water or may be introduced through the distribution system are:***

**Microbial organisms**, such as viruses and bacteria which may come from cross connections, breaks in the water distribution system or biofilm development in the pipes. Potential problems are detected when total or fecal coliforms are found in the system during routine testing.

**Inorganic compounds**, such as salts and metals, are naturally-occuring or could result from urban stormwater runoff, industrial or domestic wastewater discharges, or farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemicals**, including synthetic and volatile organic chemicals, could be byproducts of industrial processes, petroleum distribution, and can also come from gas stations, and urban stormwater runoff.

**Radionuclides** are naturally occurring or could be the result of oil and gas production.

**Note:**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## *Town Hall Meetings:*

Please contact your local Mayor if you would like to include an informational briefing of your Consumer Confidence Report at an upcoming Town Hall Meeting.

## *Table Definitions:*

**MCL**

Maximum Contaminant Level — The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG**

Maximum Contaminant Level Goal — The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

## *Table Abbreviations:*

**ppb** parts per billion or micrograms per liter
**ppm** parts per million or milligrams per liter
**pCi/l** pico Curie per liter
**nd** not detected
**na** not applicable

## *Table Notes:*

1. Fluoride is added to the water system to help promote healthy teeth in children.

2. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

# *Water Quality Table for Tripler Army Medical Center*

Data presented in this table includes the results of samples taken between January 1, 2002 and December 31, 2002, unless otherwise noted. Samples were collected and analyzed for 117 different chemicals. All test results were less than MCLs. Results of samples in the table below identify low levels of contaminants detected below EPA MCLs.

| Contaminants | MCL | MCLG | Average Level Detected | Range of Detection (multiple samples only) | Likely Source of Contaminant | Violation |
|---|---|---|---|---|---|---|
| **Organic** | | | | | | |
| Di(2-ethylhexyl)phthalate (ppb) | 6 | na | 0.9* | 0.9 | Discharge from rubber and chemical factories | NO |
| **Inorganic** | | | | | | |
| Chromium (ppb) 1999 | 100 | 100 | 1 | nd - 2 | Erosion of natural deposits | NO |
| Fluoride[1] (ppm) | 4 | 4 | 0.65 | 0.44 - 0.83 | Water additive which promotes strong teeth | NO |
| Nitrate as Nitrogen (ppm) | 10 | 10 | 0.55 | 0.47 - 0.62 | Runoff from fertilizer use | NO |
| **Radionuclides** | | | | | | |
| Gross Beta Activity - (pCi/l) - 2000 | 5 | 0 | 1.33 | No Range | Erosion of natural deposits | NO |
| **Unregulated[2]** | | | | | | |
| Bromoform (ppb) 1999 | na | na | 1 | nd - <2 | na | NO |
| Sodium (ppm) 1999 | na | na | 49.5 | 46 - 53 | Naturally-occurring | NO |

* Phthalate esters and other background components appear in variable quantities in laboratory and field reagent blanks, and generally cannot be accurately measured at levels below about 2 µg/L. " This implies that it is common to have background contamination of levels up to the 2 ug/L level.

## *Violations:*

A violation occurs when the Level Detected exceeds the MCL. **No violations occurred in 2002 for the Tripler Army Medical Center Water System.**

## *To request further information:*

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

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Tripler Army Medical Center